

FY2011 Performance Report
for
Cooperative Agreement- 14110-B-J016
between the
US Fish and Wildlife Service
the
Pacific States Marine Fisheries Commission
and
Idaho Department of Fish and Game
Hatchery Evaluation and Data Management

PSMFC staff assisted IDFG in addressing objectives and tasks outlined in **Cooperative Agreement #14110-B-J008** between the US Fish and Wildlife Service and the Idaho Department of Fish and Game (Exhibit C-1 in the Cooperative Agreement). These objectives are aligned closely with the objectives from Cooperative Agreement #14110-B-J016 listed below.

Objective 1. Develop reliable estimates of harvest in the Columbia River for Chinook salmon and steelhead trout released from Idaho fish hatcheries.

Task 1.1 Work through all available historic catch and sample data from the RMIS database to estimate historic harvest of steelhead released from Idaho hatcheries.

This task was completed for Chinook salmon and the data was reported in the spreadsheet tables submitted to the LSRCP office. This task will need to be carried forward into the next fiscal year for the steelhead releases. This task will be completed prior to the 2012 LSRCP steelhead program review in February 2012.

Objective 2. Update and verify all IDFG CWT release and catch data into the RMIS database.

Task 2.1 Assist with designing a new computer program to upload CWT mark, release, tag association groups, and total release information into the RMIS database.

This task was not prioritized in 2011 and will not likely be prioritized in 2012. With the transition of the hatchery database to the PSMFC, the priorities will be to finalize the trapping and spawning modules of the database.

Task 2.2 Input and verify all current and historic mark and tag information into IDFG database and Regional Mark Information System.

All release and recovery information in the RMIS database is current with the exception of the fisheries sample rate information. This component of the task will carry forward to 2012.

Objective 3. Assist IDFG and USFWS staff in validating and entering all historical anadromous

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hatchery adult escapement, spawning and final disposition data from LSRCP and USFWS anadromous hatcheries (not currently in electronic format) so it can be entered into the hatchery database.

Task 3.1 Validate remaining trapping and spawning and final disposition data spreadsheets and upload to hatchery database.

All historic trapping, spawning and final disposition data has been entered into electronic format and the majority of years have been validated against hatchery brood reports. There are just a few years where staff has had a difficult time resolving discrepancies between the raw data and the summaries provided in hatchery brood reports and will continue to work through these data in 2012. Much of the historic data has been uploaded to the database and is available at <http://fishandgame.idaho.gov/ifwis/hdmstrappivot/>

Task 3.2 Begin compiling and organizing historic incubation, rearing, marking and release data for salmon and steelhead hatcheries. Develop template Excel spreadsheets to house this data. Begin entering raw data and converting electronic data into the Excel spreadsheets.

Delays in completion of the trapping and spawning modules of the database have delayed initiation of the incubation and rearing module of the database. No work on this task was completed in 2011. Until the technical and oversight committees establish at what detail level we need to capture the historic data, this task will not be prioritized.

Objective 4. Expand and/or modify harvest creel efforts within Idaho to increase precision of harvest estimates (target sample rate of 20%).

Task 4.1 Continue monitoring catch sampling rates for Idaho's salmon and steelhead recreational fisheries and identify strata that are over/under sampled.

Catch sampling rates were estimated for all river sections by month.

Task 4.2 Continue evaluating strategies to increase and/or redistribute creel effort in order to obtain a more consistent sample rate across time and area fishing strata.

IDFG is currently working with the University of Idaho to evaluate the current steelhead catch sampling program and will develop recommendations for improving the current program.

Task 4.3 Make recommendations for a sampling scheme (which incorporates cost) to achieve the desired sampling rate.

IDFG is currently working with the University of Idaho to evaluate the current steelhead catch sampling program and will develop recommendations for improving the current sampling program.

Objective 5. Estimate the age composition of adult hatchery and natural origin Chinook salmon and steelhead captured at the Lower Granite Dam fish trap.

Task 5.1 Mount, read and determine the age of adult spring/summer Chinook salmon and steelhead scales collected in 2010.

Scale samples from hatchery-origin Chinook salmon were collected in the spring and summer

of 2010 and 628 scales samples were subsequently analyzed. During the spring and summer of 2011, 4,001 scale samples were collected and 542 subsequently aged. A summary of the length and age analysis for the 2010 and 2011 samples is reported in the 2011 Draft Year End Report submitted to LSRCF (Coop Agreement 1411-B-J008) in December 2011.

During the fall of 2009 and the spring of 2010, 4,040 scale samples were collected at Lower Granite Dam from natural-origin steelhead of which 1,732 were aged. During the spring and summer of 2010, 1,172 scale samples were collected from natural-origin Chinook salmon, of which 1,130 were aged.

During the fall of 2010 and the spring of 2011, 4,712 scale samples were collected at Lower Granite Dam from natural-origin steelhead of which 2,058 were aged. During the spring and summer of 2011, 2,859 scale samples were collected from natural-origin Chinook salmon, of which 2,036 were aged.

Age and length analysis for both years each have been completed and is in draft form that will be finalized and submitted to the Bonneville Power Administration under Project# 1990-055-00 (contract # 45642 and 50973) and Project 1991-073-00 (contract # 45995 and 50975)

Task 5.2 Validate the accuracy of the scale aging technique by using known age fish from PIT tagged Chinook and steelhead.

Scale samples from known-age Chinook salmon (hatchery- and natural-origin) were collected at Lower Granite Dam. Accuracy for these fish was 99% (99 of 100) in 2010 For steelhead scale samples (natural-origin) analyzed from fish collected during the 2010 spawn year, 93% (52 of 56) of the known aged steelhead samples were aged correctly. For scales samples collected during 2011, 98.4% (126 of 128) of the known age Chinook salmon scales and 98.8% (80 of 81) of the known age steelhead scales were aged accurately.

Objective 6. Assist with data collection activities at anadromous fish hatcheries in Idaho.

Task 6.1 Assist hatchery and research staff with data recording and sampling (scale and tissue) of adult Chinook salmon returning to anadromous fish hatcheries in Idaho.

PSMFC staff assisted with trapping, sampling and data recording at Sawtooth, Clearwater, and McCall fish hatcheries during 2011.

Task 6.2 Assist hatchery and research staff with scanning adults for the presence of Coded Wire Tags (CWTs), collecting snout samples, and coordinating delivery of snouts to the CWT lab in Nampa.

PSMFC staff assisted IDFG staff in scanning and collecting CWTs in all Chinook and steelhead fisheries conducted in Idaho during the 2011 contract period.

Task 6.3 Assist with redd counting and the sampling of carcasses during Chinook salmon spawning ground surveys.

PSMFC staff assisted IDFG staff in conducting redd counts and sampling Chinook salmon carcasses in the upper Salmon River and South Fork Salmon River during the summer/fall of 2011.

Task 6.4 Assist hatchery staff with maintaining adult PIT tag arrays and data downloads/uploads at

Sawtooth and SFSR adult traps.

PSMFC staff, in the process of conducting other duties, was available on site at the SFSR adult PIT array to download and transfer detection data and troubleshoot technical problems at the array. All data from both PIT arrays have been successfully uploaded to the PTAGIS database.

Objective 7. Assist IDFG staff to complete the following tasks associated with database and application development.

PSMFC staff assisted IDFG with tasks 7.1 through 7.8 below. Status of these work tasks is reported in the FY2011 Data Management Performance report for Cooperative Agreement # 14110-B-J008

Task 7.1 Develop the core application for the incubation, rearing and release module that allows hatcheries to prepare and manipulate a schematic of the hatchery layout.

Task 7.2 Begin development of add-in modules that will plug into the core of the incubation, rearing and release module. These add-in modules are what will be used to record actual fish data.

Task 7.3 Maintain and make bug fixes to the spawning and final disposition modules. IFWIS staff members will maintain existing modules and make bug fixes in response to issues identified by application and database users.

Task 7.4 Finalize standardized data reports. Deploy final version of standardized reports for adult trapping, spawning and dispositions.

Task 7.5 Begin conceptual development of data reporting tools for the Incubation, Rearing and Release module. If development proceeds far enough, develop prototype data reporting tools for the incubation, rearing and release module.

Task 7.6 Web site development. Complete the development of and deploy a secure and neutral Web site for partners to access SBHIS applications and data.

Task 7.7 Compile historic Chinook data. Complete data entry, QA/QC and upload to the website for historic steelhead and Chinook trapping and spawning data.

Task 7.8 Maintain and enhance the user manual for the trapping, spawning, and disposition modules as necessary, based on user feedback.

Objective 8. Assist IDFG M&E biologists with day to day operations of IDFG CWT Laboratory

All tasks for this objective were completed and reported in the FY2011 Spring/Summer Chinook salmon and summer steelhead performance reports for Cooperative Agreement # 14110-B-J008

Task 8.1 Maintain IDFG CWT release and recovery database.

Task 8.2 Work with IDFG M&E biologists to ensure that all Chinook salmon and steelhead snout

collection, CWT extraction, data entry and uploading and verification of data to the RMIS database is completed by specified deadlines.

Task 8.2 Assist IDFG M&E biologists with developing and providing data summaries and reports to distribute to intra- and inter-agency staff as needed.

Objective 9. Assist IDFG M&E biologists with organizing and maintaining data associated with the hatchery-origin Chinook salmon and steelhead PIT tagging program

Both tasks for this objective were completed and reported in the FY2011 Spring/Summer Chinook salmon and summer steelhead performance reports for Cooperative Agreement # 14110-B-J008

Task 9.1 Maintain, validate and upload all data associated with the hatchery PIT tag program by specified deadlines

Task 9.2 Assist IDFG M&E biologists with developing and providing PIT tag data summaries and reports to distribute to intra- and inter-agency staff as needed.

Objective 10. Assist IDFG Regional Fisheries Biologists with Chinook salmon and steelhead creel surveys.

Task 10.1 Assist with developing field schedules for salmon and steelhead creel surveys.

PSMFC staff assisted IDFG in coordinating and scheduling Chinook salmon and steelhead fishery creel sampling during all fisheries in the Clearwater River and mainstem Salmon River fisheries during 2011.

Task 10.2 Organize and maintain field gear associated with creel and harvest surveys

PSMFC staff assisted IDFG in maintaining field gear for Chinook salmon and steelhead fishery creel sampling during all fisheries in the Clearwater River and mainstem Salmon River fisheries during 2011.

Task 10.3 Maintain creel data in an organized manner and assist IDFG biologists entering data into the creel database

PSMFC staff assisted IDFG in maintaining and entering data collected during Chinook salmon and steelhead fishery creels for all fisheries in the Clearwater River and mainstem Salmon River fisheries during 2011.